

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF THE CLAIMS:**

Claim 1 (Currently Amended) A metal oxide semiconductor (MOS) device comprising:  
a semi-conducting substrate having source and drain regions;  
a gate dielectric of less than 100 Å thickness on said semi-conducting substrate, said gate dielectric is selected from the group consisting of HfO<sub>2</sub>, ZrO<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>, silicates or nitrogen additions of HfO<sub>2</sub>, ZrO<sub>3</sub>, or Y<sub>2</sub>O<sub>3</sub>, and mixtures thereof; and  
a gate formed of a metal comprising Re ~~on top of~~ vertically abutting said gate dielectric, said gate comprising Re has an interface trapped charge density of about  $3 \times 10^{10} \text{ cm}^{-2} \text{ eV}^{-1}$  to about  $4 \times 10^{10} \text{ cm}^{-2} \text{ eV}^{-1}$ , and wherein said Re is derived from a Re<sub>2</sub>(CO)<sub>10</sub> CVD precursor.

Claim 2 (Previously Presented) A metal oxide semiconductor device according to claim 1, wherein said gate dielectric has a thickness of less than 50 Å.

Claim 3 (Cancelled)

Claim 4 (Cancelled)

Claim 5 (Cancelled)

Claim 6 (Cancelled)

Claim 7 (Original) A metal oxide semiconductor device according to claim 1, wherein said semi-conducting substrate is p-type or n-type.

Claim 8 (Original) A metal oxide semiconductor device according to claim 1, wherein said semi-conducting substrate is formed of a material selected from the group consisting of silicon, SiGe, SOI, Ge, GaAs, and organic semiconductors.

Claim 9 (Original) A metal oxide semiconductor device according to claim 1, wherein said semi-conducting substrate is formed of silicon.

Claim 10 (Currently Amended) A field effect transistor (FET) comprising:  
a semi-conducting substrate having at least one source and one drain region;  
a gate dielectric layer of less than 100 Å thickness on said semi-conducting substrate,  
said gate dielectric layer is selected from the group consisting of HfO<sub>2</sub>, ZrO<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>, silicates or nitrogen additions of HfO<sub>2</sub>, ZrO<sub>3</sub>, or Y<sub>2</sub>O<sub>3</sub>, and mixtures thereof; and  
a gate formed of a metal comprising Re ~~on top of~~ vertically abutting said gate dielectric layer, said gate comprising Re has an interface trapped charge density of about 3E 10 cm<sup>-2</sup> eV<sup>-1</sup> to about 4E 10 cm<sup>-2</sup> eV<sup>-1</sup>, and wherein said Re is derived from a Re<sub>2</sub>(CO)<sub>10</sub> CVD precursor.

Claim 11 (Previously Presented) A field effect transistor according to claim 10, wherein said gate dielectric layer has a thickness of less than 50 Å.

Claim 12 (Cancelled)

Claim 13 (Cancelled)

Claim 14 (Original) A field effect transistor according to claim 10, wherein said semi-conducting substrate is p-type or n-type.

Claim 15 (Original) A field effect transistor according to claim 10, wherein said semi-conducting substrate is formed of a material selected from the group consisting of silicon, SiGe, SOI, Ge, GaAs, and organic semiconductors.

Claim 16 (Original) A field effect transistor according to claim 10, wherein said semi-conducting substrate is formed of silicon.

Claim 17 (Currently Amended) A metal oxide semiconductor (MOS) device comprising:  
a semi-conducting substrate having source and drain regions;

a Hf-based gate dielectric of less than 100 Å on said semi-conducting substrate; and  
a gate formed of a metal comprising Re ~~on top of~~ vertically abutting said Hf-based gate dielectric, said gate comprising Re has an interface trapped charge density of about  $3 \times 10^{-2} \text{ eV}^{-1}$  to about  $4 \times 10^{-2} \text{ eV}^{-1}$ , and wherein said Re is derived from a  $\text{Re}_2(\text{CO})_{10}$  CVD precursor.